UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
FLEURANTIN, JEAN B

ART UNIT	PAPER NUMBER
2162	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 November 2008*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-4,7,8,13-28 and 30-38* is/are rejected.
7)☒ Claim(s) *5,6,9-12 and 29* is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   This is in response to Applicant(s) arguments filed on 11/10/2008.

The following is the current status of claims:

Claims 1-38 remain pending for examination.

Response to Arguments

2.   Applicant's arguments, filed 11/10/2008, with respect to the dependent claims 5, 6, 9-12 and 29 have been fully considered and are persuasive. The rejection(s) of claims 5-6, 9-12 and 29 has (have) been withdrawn.

Wherein, claims 5-6, 9-12 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

However, applicant's arguments, with respect to the pending claims 1-4, 7-8, 13-28 and 30-38 have been fully considered but they are not persuasive because the combination of "Kabra" in view of "Konno" discloses the limitations "each JPU in the second group being responsive to requests received from a host computer to execute jobs and return results independent of execution at other JPUs" set forth in section 3.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 7-8, 13-28 and 30-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over

USPN 6,507,834 issued to Kabra et al., ("Kabra") in view of USPN 6,078,955 issued to Konno et al.,

("Konno").

As per claim 1, Kabra discloses "asymmetric data processing system comprising: a first group of

one or more host computers, each comprising a memory, a network interface and one or more Central

Processing Units (CPUs)" (i.e., computer system including a plurality of computers interconnected by a

network and an administrator server; col. 4, lines 19-31 and figure 1), "each host computer accepting and

responding to requests to process data" (i.e., user interface, SQL queries, transforms query into extended

SQL syntax and transmits to data server; see col. 9, line 66 to col. 10, line 5);

"a second group of two or more Job Processing Units (JPUs), operating autonomously and

asynchronously from one another, each JPU comprising of a memory, a network interface" (i.e.,

communicating between processors on a symmetric multiprocessing system, memory used as the

transport vehicle; see col. 7, lines 19-26 and figure 1), "a data interface with exclusive access to one or

more sources of data, and one or more general purpose CPUs" (i.e., graphical user interface that

querying and updating; see col. 9, line 66 to col. 10, line 2), "the jobs containing instructions for the

processing of a particular subset of data under the JPU's exclusive control" (i.e., transmitting request to

the master, this client address information is globally unique and includes the client address and port;

see col. 11, lines 50-54) ; and

"a network connecting the network interfaces within each group and between the two groups" (i.e., transmitting over network from one node to another; see col. 9, lines 31-34 and col. 7, lines 2-12 and figure 1).

Kabra fails to explicitly disclose each JPU in the second group being responsive to requests received from a host computer to execute jobs and return results independent of execution at other JPUs. However, Konno discloses each JPU in the second group being responsive to requests received from a host computer to execute jobs and return results independent of execution at other JPUs (see Konno col. 2, line 56 to col. 3, line 8 and col. 4, lines 32-57). It would have been obvious to a person of ordinary skill in the art to modify the system of Kabra by each JPU in the second group being responsive to requests received from a host computer to execute jobs and return results independent of execution at other JPUs as disclosed by Konno (see Konno col. 4, lines 32-57). Such a modification would allow the system of Kabra to provide system to manage the computer resource information and the operating condition information on the CPUs, the files and memories of each computer of the computer system and the user resource information (see Konno col. 2, lines 25-31), therefore, improving the reliability of the asymmetric data streaming architecture having autonomous and asynchronous job processing unit.

As per claim 2, Kabra discloses "the data comprises structured records" (see col. 6, lines 54-56).

As per claims 3 and 4, Kabra discloses "the data comprises a mixture of fixed and variable length fields of various data types" (see col. 6, 54-58).

As per claims 7 and 8, Kabra discloses "autonomous operation is such that host computers in the first group do not coordinate processing across JPUs" (see col. 7, lines 19-26 and figure 1).

As per claim 13, Kabra discloses "in which the JPUs in the second group manage transactions autonomously, containing software which is responsible for at least one of the following functions: starting, pre-committing, committing and aborting transactions against data on the JPU" (see col. 7, lines

19-26 and figure 1).

As per claims 14 and 16, Kabra discloses "the JPUs in the second group control concurrent access to data that is local to the JPU, containing software which is responsible for locking the local data and identifying dependencies between transactions that process local data" (see col. 7, lines 19-26).

As per claim 15, Kabra discloses "in which the JPUs in the second group perform mirroring autonomously, by ensuring that modifications to data local to a first JPU are replicated redundantly on another device" (see col. 8, lines 22-24).

As per claim 17, Kabra discloses "in which the JPUs in the second group may receive new jobs before completing older jobs, and where the resources required to satisfy jobs are scheduled locally and autonomously by the JPUs that own the resources" (see col. 9, lines 31-34).

As per claims 18-23, the limitations of claims 18-23 are similar to claims 1-4 and 7-8, therefore, the limitations of claims 18-23 are rejected in the analysis of claims 1-4 and 7-8, and these claims are rejected on that basis.

As per claim 24, Kabra discloses "each JPU in the second group further comprises a scheduling component, and each JPU processes its assigned jobs and returns results to a requesting host in the order and at the time that the scheduling component specifies" (see col. 8, lines 19-16).

As per claims 25-28, the limitations of claims 25-28 are similar to claims 30-33, therefore, the limitations of claims 25-28 are rejected in the analysis of claims 30-33, and these claims are rejected on that basis.

As per claim 30, Kabra discloses "in which the hosts in the first group are exclusively responsible for interfacing to external applications, thereby supporting the use of JPUs having different processing capabilities, without requiring changes to be made to the applications making requests" (see col. 12, lines 11-23).

As per claims 31 and 32, Kabra discloses "in which a pre-existing application that makes a request in a standard query language of the system, results in the host distributing jobs to one or more JPUs in the second group, without having to change the pre-existing application" (see col. 12, lines 25-34).

As per claim 33, Kabra discloses "in which the identity of a JPU primarily responsible for processing a given subset of data is determinable as a function of the data" (see col. 12, line 18-20).

As per claim 34, Kabra discloses "a third group of Large Job Processing Units (LJPUs), each LJPU being responsive to jobs, the LJPUs having greater memory and processing capabilities than the JPUs; and network also connects LJPUs in the third group to the computers of the other groups" (see col. 7, lines 10-19).

As per claims 35-38, the limitations of claims 35-38 are similar to claims 24 and 34, therefore, the limitations of claims 35-38 are rejected in the analysis of claims 24 and 34, and these claims are rejected on that basis.

Allowable Subject Matter

4.   Claims 5, 6, 9-12 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

CONTACT INFORMATION

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEAN B. FLEURANTIN whose telephone number is (571)272-4035. The examiner can normally be reached on 10:00 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E. BREENE can be reached on 571 - 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JEAN B. FLEURANTIN/
Primary Examiner, Art Unit 2162